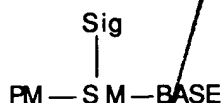


-- 204. (New) A nucleotide having the formula,



wherein PM is a phosphate moiety, SM is a ribose or a deoxyribose sugar moiety, and BASE is a pyrimidine, purine or 7-deazapurine moiety, said PM being attached to SM at a position independently selected from the 2', 3', and 5' positions of SM when said nucleotide is a ribonucleotide, and at a position independently selected from the 3' and 5' positions when said nucleotide is a deoxyribonucleotide, said BASE being attached to the 1' position of SM from the N<sup>1</sup> position when BASE is a pyrimidine or the N<sup>9</sup> position when BASE is a purine or 7-deazapurine, and said Sig is covalently attached to SM directly or through a linkage group. --

B1 -- 205. (New) A ribonucleotide in accordance with claim 204 wherein Sig is attached to the C2' or the C3' position of SM. --

-- 206. (New) An oligo- or polydeoxyribonucleotide comprising at least one nucleotide in accordance with claim 204. --

~~-- 207. (New) An oligo- or polyribonucleotide comprising at least one ribonucleotide in accordance with claim 205. --~~

-- 208. (New) A nucleotide in accordance with claim 204 wherein Sig comprises a moiety containing at least 3 carbon atoms. --

-- 209. (New) A nucleotide in accordance with claim 204 wherein Sig is selected from the group consisting of monosaccharides, oligosaccharides and polysaccharides. --

-- 210. (New) A nucleotide in accordance with claim 209 wherein Sig is selected from the group consisting of triose, tetrose, pentose, hexose, heptose and octose. --

-- 211. (New) A nucleotide in accordance with claim 204 wherein Sig includes a glycosidic linkage moiety. --

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-- 212. (New) A nucleotide in accordance with claim 204 wherein Sig comprises a sugar residue and said sugar residue is complexed with a binding protein therefor. --

-- 213. (New) A nucleotide in accordance with claim 212 wherein said binding protein comprises a lectin. --

-- 214. (New) A nucleotide in accordance with claim 213 wherein said lectin comprises Concanavalin A. --

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mt.  
-- 215. (New) A nucleotide in accordance with claim 204 wherein Sig comprises a component selected from the group consisting of biotin, iminobiotin, an electron dense component, a magnetic component, an enzyme, a hormone component, a radioactive component, a metal-containing component, a fluorescent component, a chemiluminescent component, an antigen, a hapten and an antibody component. --

-- 216. (New) A nucleotide in accordance with claim 215 wherein said electron dense component comprises ferritin. --

-- 217. (New) A nucleotide in accordance with claim 213 wherein said lectin is conjugated to ferritin. --

-- 218. (New) A nucleotide in accordance with claim 214 wherein said Concanavalin A is conjugated to ferritin. --

-- 219. (New) A nucleotide in accordance with claim 215 wherein Sig comprises a radioactive isotope. --

-- 220. (New) A nucleotide in accordance with claim 219 wherein said radioactive isotope comprises radioactive cobalt. --

-- 221. (New) A nucleotide in accordance with claim 215 wherein Sig comprises an enzyme. --

-- 222. (New) A nucleotide in accordance with claim 221 wherein said enzyme is selected from the group consisting of alkaline phosphatase, acid phosphatase,  $\beta$ -galactosidase, ribonuclease, glucose oxidase and peroxidase. --

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-- 223. (New) A nucleotide in accordance with claim 215 wherein Sig comprises a fluorescent component. --

-- 224. (New) A nucleotide in accordance with claim 223 wherein said fluorescent component is selected from the group consisting of fluorescein, rhodamine and dansyl. --

-- 225. (New) A nucleotide in accordance with claim 215 wherein said Sig comprises a magnetic component. --

-- 226. (New) A nucleotide in accordance with claim 225 wherein such magnetic component comprises a magnetic oxide. --

-- 227. (New) A nucleotide in accordance with claim 226 wherein such magnetic oxide comprises ferric oxide. --

-- 228. (New) A nucleotide in accordance with claim 215 wherein Sig includes a hapten component capable of complexing with an antibody specific thereto. --

-- 229. (New) A nucleotide in accordance with claim 204 wherein Sig includes a catalytic metal-containing component. --

-- 230. (New) An oligo- or polynucleotide comprising at least one nucleotide in accordance with claim 204 and wherein said oligo- or polynucleotide is terminally ligated or attached to a polypeptide. --

-- 231. (New) A composition comprising an oligo- or polynucleotide including at least one nucleotide in accordance with claim 204, a polypeptide capable of forming a complex with Sig, and a moiety which can be detected when such complex is formed. --

-- 232. (New) A composition in accordance with claim 231 wherein said polypeptide comprises a polylysine. --

-- 233. (New) A composition in accordance with claim 231 wherein said polypeptide is selected from the group consisting of at least one member of avidin, streptavidin and anti-Sig immunoglobulin. --

-- 234. (New) A composition in accordance with claim 231 wherein Sig comprises a ligand and said polypeptide comprises an antibody thereto. --

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-- 235. (New) A composition in accordance with claim 231 wherein said detectable moiety is selected from the group consisting of biotin, iminobiotin, an electron dense component, a magnetic component, an enzyme, a hormone component, a radioactive component, a metal-containing component, a fluorescent component, a chemiluminescent component, an antigen, a hapten and an antibody component. --

-- 236. (New) A oligo- or polynucleotide in accordance with claim 206 wherein said Sig comprises a moiety which is detectable when said nucleotide is incorporated with, contained in or associated with an oligo- or polynucleotide. --

Sub  
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-- 237. (New) An oligo- or polyribonucleotide in accordance with claim 207 wherein said Sig comprises a moiety which is detectable when said ribonucleotide is incorporated with, contained in or associated with an oligo- or polynucleotide. --

In The Abstract of the Disclosure:

Replace the originally submitted Abstract with new page 141 attached hereto as Exhibit A.

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### **REMARKS**

Applicants are presenting new claims 204-237 in this continuation application under Rule 1.60. In the Advisory Action mailed on July 29, 1992 in connection with the parent application (Serial No. 07/531,953), the Examiner indicated that "the proposed amendments to the claim and/or specification will not be entered and the final rejection stands . . ." In addition to other changes, the amendments not entered by the Examiner have been incorporated into the newly presented claims 204-237 for examination in this continuation application. It is respectfully that none of the claims herein constitutes the insertion of new matter into the original disclosure.

In the specification above, Applicants have corrected a number of errors of a typographical and/or grammatical nature for the sake of accuracy and completeness.

Applicants have also amended the specification in several instances above by inserting the acronyms, "PM," "SM," and "BASE," for the phosphate, sugar and base moieties, respectively. The insertion of these acronyms has been made in order to conform the terminology in this application with that in other related applications in the patent family. Furthermore, the change in acronyms was originally made in response to non-art rejections in other related applications, and were effected, therefore, to meet the requirements or adopt the suggestions of other patent examiner(s) handling other related applications. It is respectfully submitted that the inclusion of such acronyms into the instant disclosure does not in any way represent the insertion of new matter into the original disclosure. Applicants wish to point out that the designation of the phosphate, sugar and base moieties in the instant claims and specification, are but mere acronyms for the originally disclosed and aforementioned elements. More specifically, these acronyms are logically derived from the elements they represent. For example, "PM" merely connotes the "phosphate moiety;" "SM" the "sugar moiety;" and "BASE" the "base" moiety. The latter is clearly defined or represented in the instant claims as "a pyrimidine, purine or 7-deazapurine moiety," i.e., a base moiety.

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